



NASA Launch Services

**SMEX AO Pre-Proposal Conference
Feb 21, 2003**

**Norman Beck
NASA/KSC/ Launch Services
Program Planning Office**



NASA ELV Program Goals

John F. Kennedy Space Center

Launch Services Program

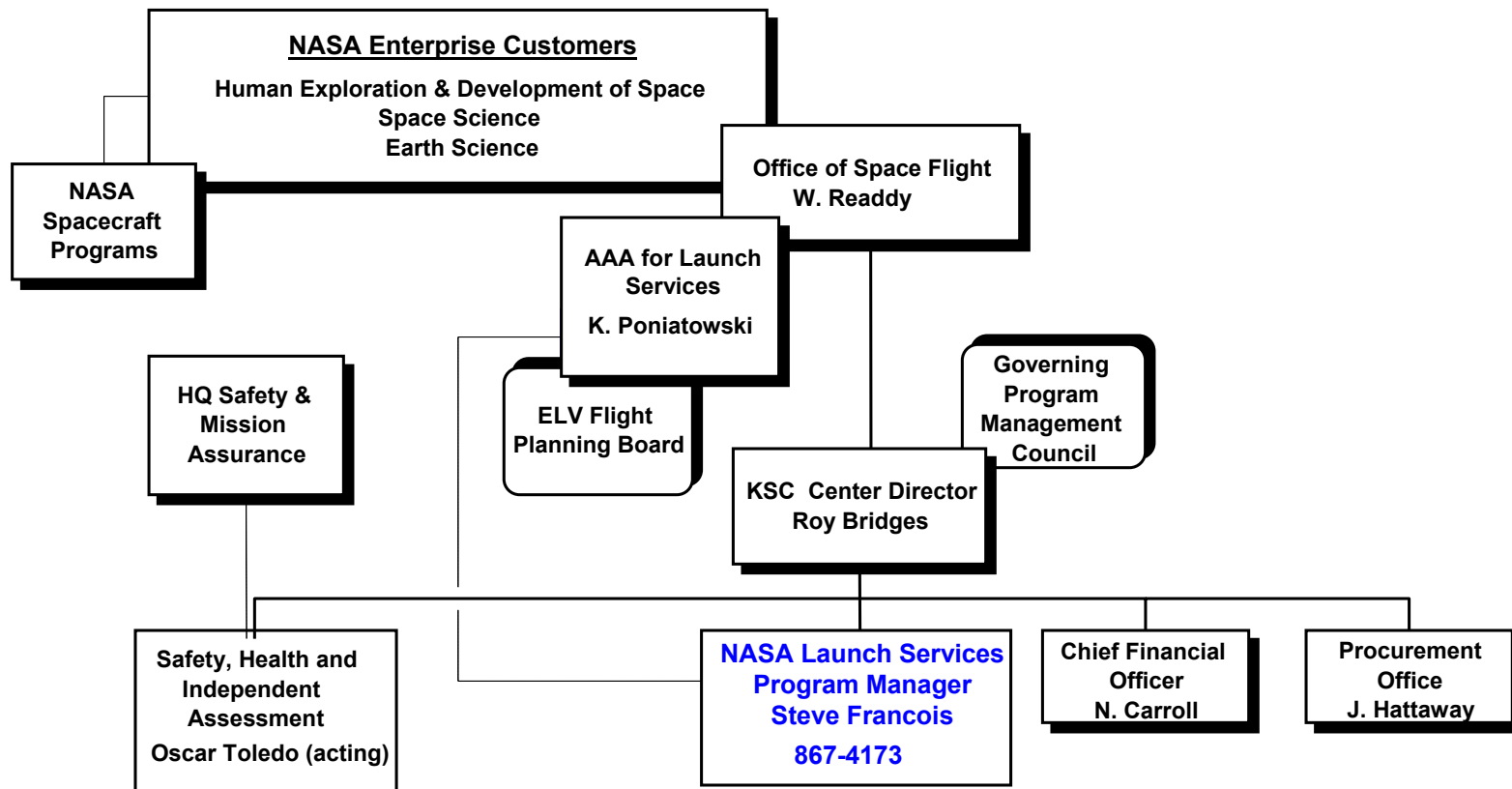
- Ensure launch service contracts are in place to support approved NASA missions
- Provide Program Management (budget, schedule, and technical) for NASA missions utilizing ELV Launch Services
- Provide a successful launch rate at or above 95 percent
- Procure commercial launch services consistent with mission criticality and procurement regulations
- Serve as Agency focal point and repository for ELV databases and advanced mission analyses
- Implement partnerships with other NASA Centers, academia, and industry to create new technological capabilities for lower costs and more reliable access to space



NASA Launch Services Program Organization

John F. Kennedy Space Center

Launch Services Program





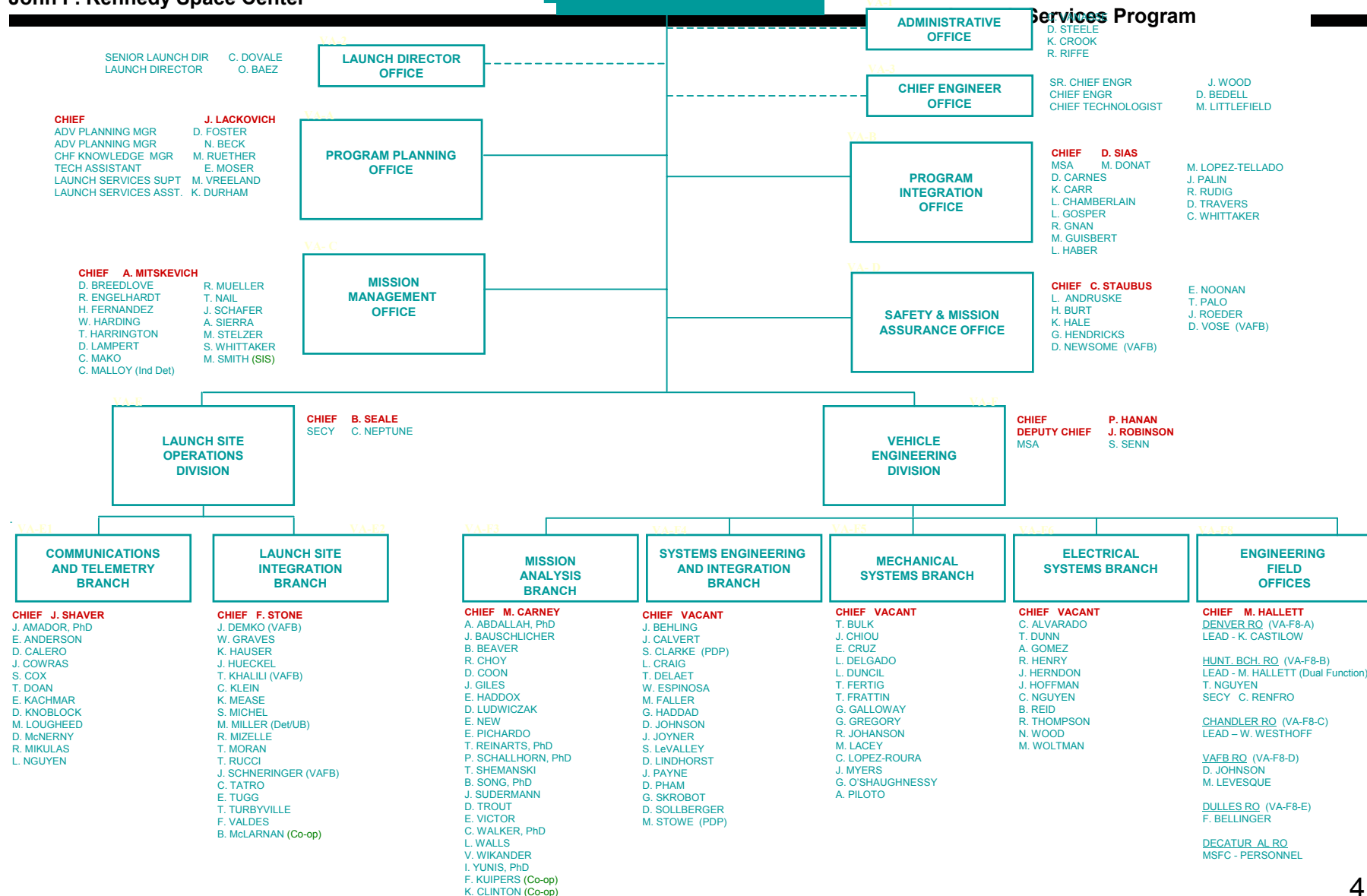
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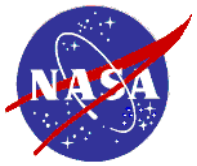
LAUNCH SERVICES PROGRAM OFFICE

DIRECTOR
DEPUTY DIR
ASSOC DIRECTOR
DIR SECY
SECY

S. FRANCOIS
R. LUGO
M. BENIK
D. FERTIG
C. LAFERRIERE

REVISED 01/12/03

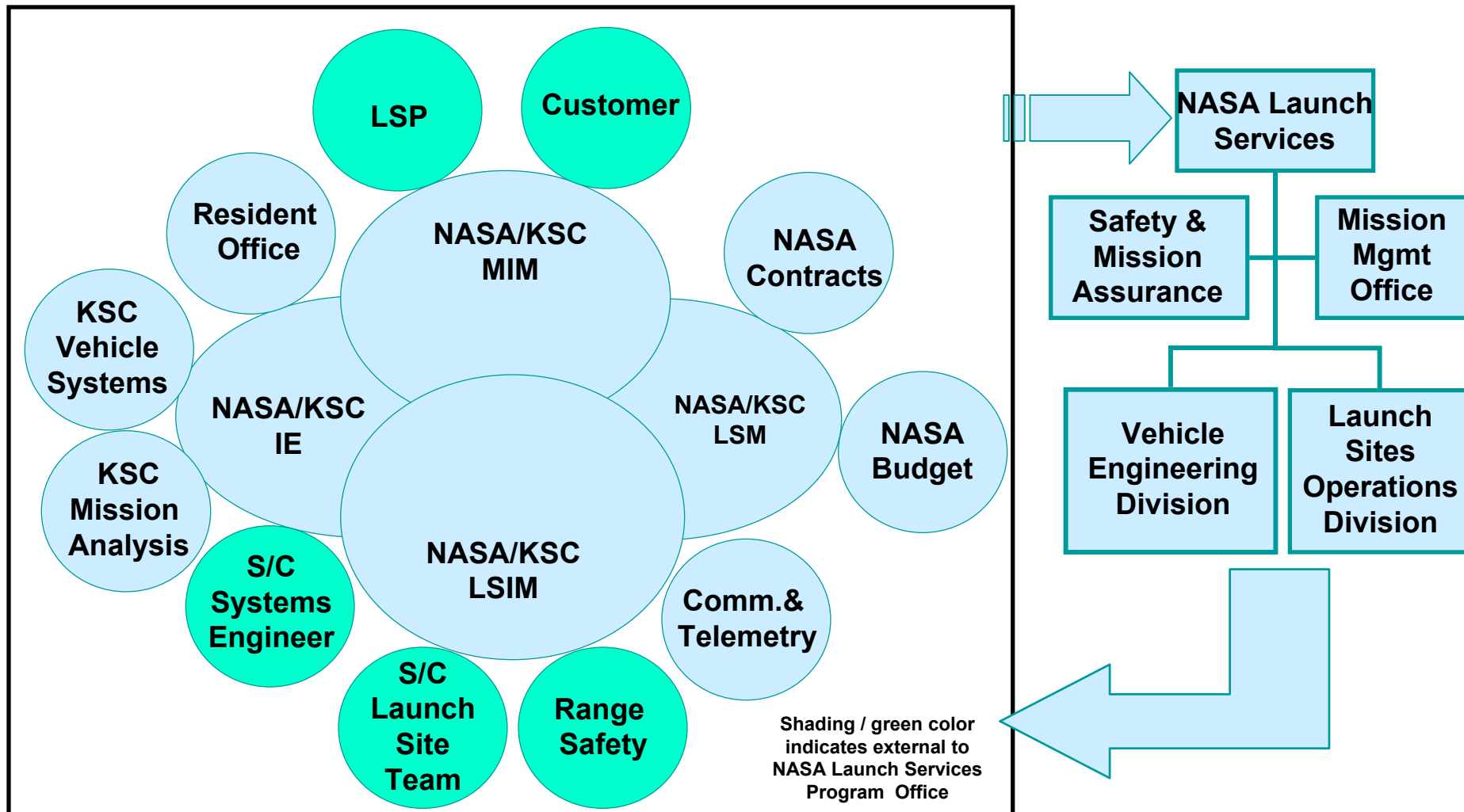




Mission Integration Teams



Mission Integration Team (MIT)





Technical Information flow into the MIT

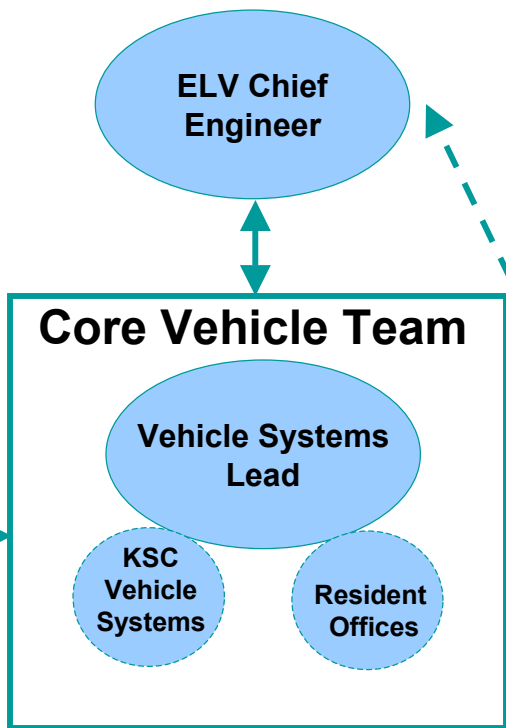
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Launch Services Program

Core Vehicle Test & Build

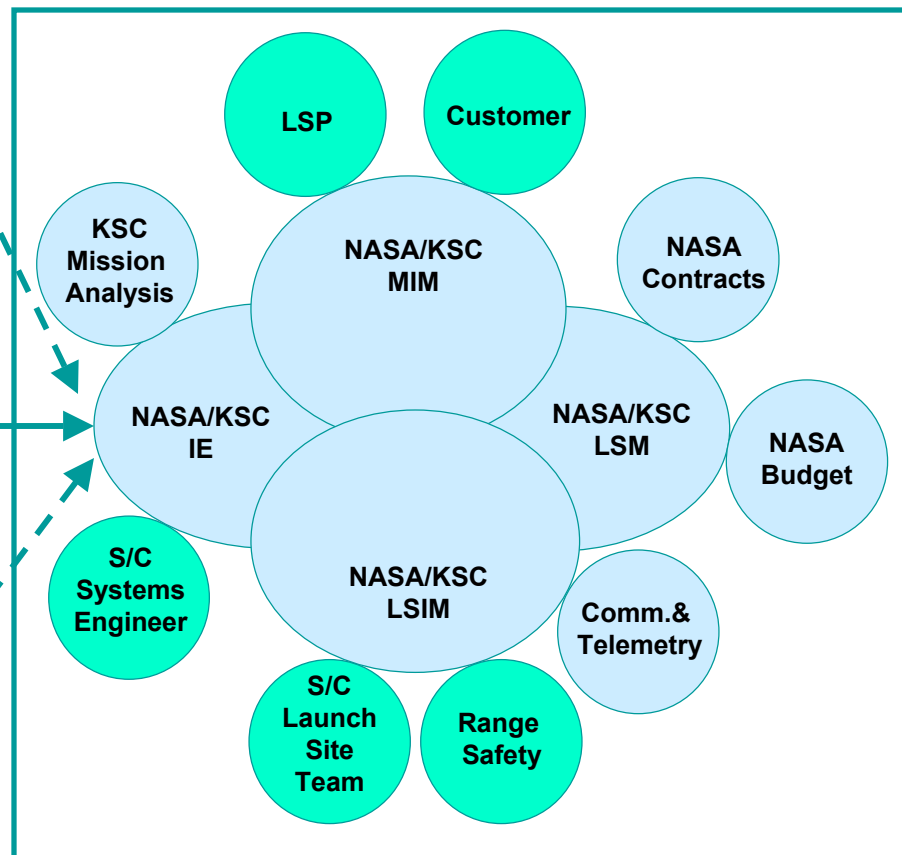
Integration & Test Facilities

Integrated Product Teams



Safety & Mission Assurance

Mission Integration





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Launch Services Program

ELV Advance Mission Planning/Design Support



Advance Mission Planning/Design

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Launch Services Program

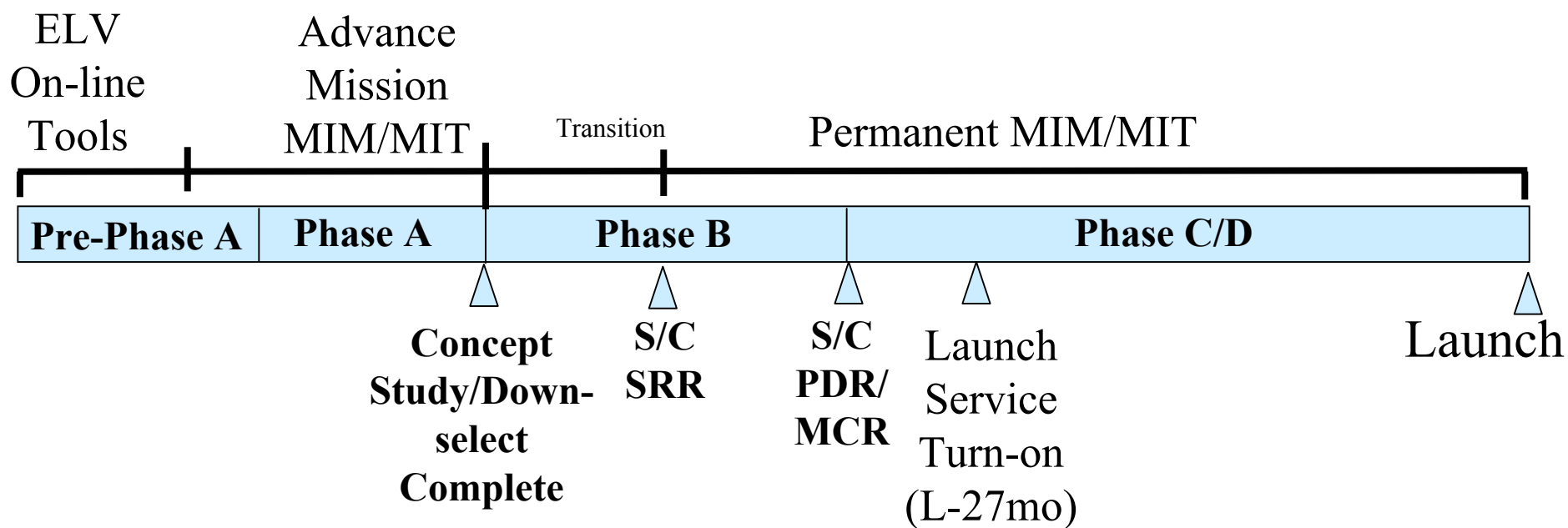
- **Advance Planning Team – Norman Beck-321-476-3617**
 - Mission Management office – Amanda Mitskevich
 - Integration Engineering – Jim Robinson
 - Mission Analysis – Mike Carney
 - Program Integration Office- Dave Sias
- **Provide a Focal Point into the NLS Program**
 - Customer Relations and Future Business Development
- **Support to Mission Formulation Team in performing LV trades**
 - Cost & Performance Quotes
 - Directed Missions
 - Potential Missions
 - Agency Initiatives
- **AO development, consultation, and evaluation**
- **Support to Independent Assessment Review Teams**
- **Work with the Launch Service Providers**
 - Future Business
 - Advance Mission Studies
- **Development/maintenance of on-line tools**
 - ELV Performance Web page
 - On-line Planner's Guide



KSC ELV Involvement in Your Mission

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Launch Services Program





Launch Services Contracts



Contracts

- **KSC Issued Launch Service Contracts**
 - SELVS-KSC CONTRACT: Small Expendable Launch Vehicle Services, NAS10-99005
 - Launch Service Contractor: Orbital Sciences Corporation
 - Type of Launch Service: Pegasus XL, Taurus
 - SELVS-KSC CONTRACT: Small Expendable Launch Vehicle Services, NAS10-99010
 - Launch Service Contractor: Coleman Research Corporation, Coleman Aerospace Co.
 - Type of Launch Service: LK-0
 - NLS CONTRACT: NASA Launch Services (NLS), NAS10-00-001
 - Launch Service Contractor: Delta Launch Services, Inc. (Boeing)
 - Type of Launch Service: Delta II, III, and IV
 - NLS CONTRACT: NASA Launch Services (NLS), NAS10-00-060
 - Launch Service Contractor: Lockheed Martin Commercial Launch Services, Inc.
 - Type of Launch Service: Atlas III and V

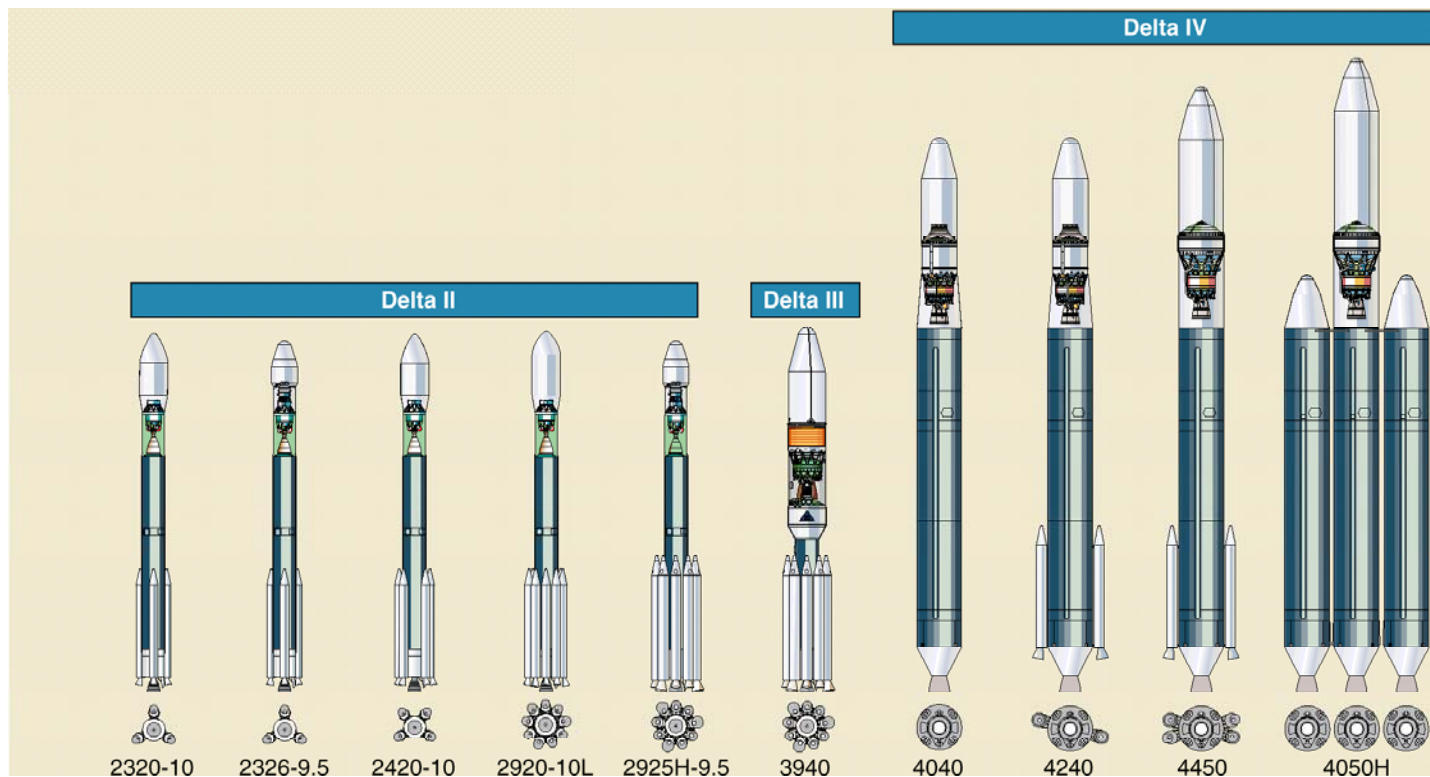


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Boeing Delta Launch Services

Launch Services Program

- The Boeing Delta II, Delta III and Delta IV family of launch vehicles are provided by the NASA Launch Services Contract





Lockheed Martin Commercial Launch Services

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Launch Services Program

- The LMCLS Atlas III and Atlas V family of launch vehicles are provided by the NASA Launch Services Contract

NLS STANDARD LAUNCH VEHICLE CONFIGURATIONS							
Atlas IIIB (Single & Dual Engine Centaur)	Atlas V 401 Atlas V 402	Atlas V 501 Atlas V 502	Atlas V 511 Atlas V 512	Atlas V 521 Atlas V 522	Atlas V 531 Atlas V 532	Atlas V 541 Atlas V 542	Atlas V 551 Atlas V 552
							



Orbital Sciences Corporation

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Launch Services Program

Pegasus XL



Taurus





Updated Launch Services Cost Figures

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Launch Services Program

Launch Service Costs (\$ in Millions) – Feb 2007 Launch

LAUNCH SERVICE	FY'04	FY'05	FY '06	FY '07	TOTAL COST
SELVS-KSC Pegasus (VAFB)	1	13	6	9	29
SELVS-KSC Pegasus (East Coast)	1	14	6	10	31
SELVS-KSC Pegasus (Equatorial)	1	15	6	11	33
SELVS-KSC Taurus (VAFB)	1	22	9	14	46
SELVS-KSC Taurus (CCAS)	1	22	9	15	47



Updated Launch Services Cost Figures

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Launch Services Program

Launch Service Costs (\$ in Millions) – Feb 2008 Launch

LAUNCH SERVICE	FY'05	FY'06	FY '07	FY '08	TOTAL COST
SELVS-KSC Pegasus (VAFB)	1	14	6	9	30
SELVS-KSC Pegasus (East Coast)	1	14	6	11	32
SELVS-KSC Pegasus (Equatorial)	1	15	6	12	34
SELVS-KSC Taurus (VAFB)	1	22	9	15	47
SELVS-KSC Taurus (CCAS)	1	22	9	16	48



ELV Advance Mission Planning Support

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Launch Services Program

Norman Beck

NASA Launch Services program Planning

Office VA-A

KSC, FL 32899

Ph: 321-476-3617

Cell: 321-266-4838

Email: Norman.M.Beck@nasa.gov